

**REMARKS UNDER 37 CFR § 1.111**

**Formal Matters**

Claims 1-20 are pending after entry of the amendments set forth herein.

Claims 1-15 were examined. Claims 1-8, 10-11 and 13-15 were rejected. Claims 9 and 12 were objected to, but indicated to contain allowable subject matter.

Applicants respectfully request reconsideration of the application in view of the amendments and remarks made herein.

No new matter has been added.

**The Office Action**

**Claims Rejected Under 35 U.S.C. Section 112, Second Paragraph**

In the Official Action of December 27, 2007, claims 1-7 were rejected under 35 U.S.C. Section 112, second paragraph, as being vague. Specifically with regard to claim 1, the Examiner asserted that the claim is not clear as to how the metal ions are related to the target to provide for detection thereof. The Examiner asserted that claim 1, as previously recited, would detect target regardless of the presence or absence of target. In response thereto, Applicants have amended claim 1 above to further recite that that metal is preferentially deposited when the target is present in the sample. Support for this amendment can be found, for example, at paragraph [0066] and throughout the specification.

In view of the above amendment and remarks, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1-7 under 35 U.S.C. Section 112, second paragraph, as being vague, as being no longer appropriate.

**Claims Rejected Under 35 U.S.C. Section 103(a) (Park et al. as evidenced by Fluke and in view of Eggers et al.)**

Claims 1-5, 7-8, 10-11 and 13-14 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Park et al. (Science, 2002) as evidenced by Fluke Corporation (Fluke Model 187 &

189 True RMS Multimeter Users Manual, 2000) and in view of Eggers et al., U.S. Patent No. 5,891,630.

The Examiner admitted that Park et al. fails to teach a substrate comprising integrated addressing circuitry in operable relation to each of the plurality of features and fails to teach providing a signal to the addressing circuitry to select one of the pluralities of features to be interrogated.

In apparent contradiction to the Examiner's position in the previous Office Action dated 04/23/2007, where the Examiner indicted that "Park fails to teach that the pad of material is resistive", the Examiner has reversed his position in the current Office Action ((dated 12/27/2007), asserting that the layer of SMPB-modified silicon dioxide that supports the oligonucleotide capture probe in Park et al. is considered to read on the pad of resistive material.

Applicants respectfully traverse and submit that Park et al. fails to teach or suggest a pad of resistive material as claimed. To further clarify this distinction, Applicants have amended claims 1 and 8 above to recite that the resistive material is inert to conditions used to bind the probe to the pad. Support for these amendments can be found, for example, at paragraph [0045] of the specification and throughout the specification. It is respectfully submitted that SMPB is a protein crosslinker and is clearly not inert to conditions used to bind the probe of Park et al. thereto.

It is further respectfully submitted that Eggers et al. fails to provide any teaching that would be properly combinable with Park et al. to make up for this deficiency.

In view of the above amendments and remarks, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1-5, 7-8, 10-11 and 13-14 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Park et al. (Science, 2002) as evidenced by Fluke Corporation (Fluke Model 187 & 189 True RMS Multimeter Users Manual, 2000) and in view of Eggers et al., U.S. Patent No. 5,891,630, as being clearly inappropriate.

**Claim Rejected Under 35 U.S.C. Section 103(a) (Park et al. as evidenced by Fluke and in view of Eggers et al. and Cheung)**

Claim 6 was rejected under 35 U.S.C. Section 103(a) as being unpatentable over Park et al. (Science, 2002) as evidenced by Fluke Corporation (Fluke Model 187 & 189 True RMS Multimeter Users Manual, 2000) and in view of Eggers et al., U.S. Patent No. 5,891,630, as applied to claims above, and further in view of Cheung, U.S. Patent No. 5,132,242.

Without acquiescing to the above ground of rejection, Applicants respectfully submit that claim 6 is patentable over the combined teachings of Park et al., Fluke, and Eggers et al. for at least the same

reasons provided above with regard to claim 1, since claim 6 depends from claim 1. It is further respectfully submitted that the deficiencies in the combined teachings of Park et al., Fluke and Eggers et al. in meeting all of the recitations of claim 1, as noted above, are not cured by the teachings of Cheung.

In view of the above remarks, the Examiner is respectfully requested to reconsider and withdraw the rejection of 6 under 35 U.S.C. Section 103(a) as being unpatentable over Park et al. (Science, 2002) as evidenced by Fluke Corporation (Fluke Model 187 & 189 True RMS Multimeter Users Manual, 2000) and in view of Eggers et al., U.S. Patent No. 5,891,630, as applied to claims above, and further in view of Cheung, U.S. Patent No. 5,132,242., as being clearly inappropriate.

**Claim Rejected Under 35 U.S.C. Section 103(a) (Park et al. as evidenced by Fluke and in view of Eggers et al. and Sandstrom)**

Claim 15 was rejected under 35 U.S.C. Section 103(a) as being unpatentable over Park et al. (Science, 2002) as evidenced by Fluke Corporation (Fluke Model 187 & 189 True RMS Multimeter Users Manual, 2000) and in view of Eggers et al., U.S. Patent No. 5,891,630, as applied to claims above, and further in view of Sandstrom, U.S. Patent No. 6,545,758.

Without acquiescing to the above ground of rejection, Applicants respectfully submit that claim 15 is patentable over the combined teachings of Park et al., Fluke and Eggers et al. for at least the same reasons provided above with regard to claim 8, since claim 15 depends from claim 8. It is further respectfully submitted that the deficiencies in the combined teachings of Park et al., Fluke and Eggers et al. in meeting all of the recitations of claim 8, as noted above, are not cured by the teachings of Sandstrom.

In view of the above remarks, the Examiner is respectfully requested to reconsider and withdraw the rejection of 15 under 35 U.S.C. Section 103(a) as being unpatentable over Park et al. (Science, 2002) as evidenced by Fluke Corporation (Fluke Model 187 & 189 True RMS Multimeter Users Manual, 2000) and in view of Eggers et al., U.S. Patent No. 5,891,630, as applied to claims above, and further in view of Sandstrom, U.S. Patent No. 6,545,758, as being clearly inappropriate.

**Claims Objected To**

Claims 9 and 12 were objected to as being dependent upon a rejected base claim, but indicated to be allowable if rewritten into independent form including all of the limitations of the base claim and

any intervening claims. In response thereto, Applicants have submitted new independent claim 17 above, which combines the recitations of claim 8 (prior to the above amendment of claim 8) and claim 9. Accordingly, the Examiner is respectfully requested to indicate the allowance of claim 16 in the next Official Action.

### **New Claims 16 and 18-20**

New claim 16 depends from claim 1. Support for this claim can be found in paragraphs (e) and (f) that were previously in claim 1. Claims 18-20 depend from claim 17 and find support in claims 12-14. The Examiner is respectfully requested to indicate the allowance of claims 16-20 in the next Official Action.

### **Conclusion**

Applicants submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone the undersigned at 408-736-3554.

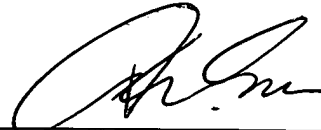
The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-1078, order number 10031347-01.

Respectfully submitted,

Date: \_\_\_\_\_

3/27/08

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